

# **EXHIBIT Y**

**FILED UNDER SEAL**

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**IN THE UNITED STATES DISTRICT COURT**  
**NORTHERN DISTRICT OF CALIFORNIA**  
**SAN FRANCISCO DIVISION**

GOOGLE LLC,

Plaintiff

v.

SONOS, INC.,

Defendant.

CASE NO. 3:20-cv-06754-WHA

Related to CASE NO. 3:21-cv-07559-WHA

**REBUTTAL EXPERT REPORT OF SAMRAT BHATTACHARJEE REGARDING NON-  
INFRINGEMENT OF CLAIM 13 OF U.S. PATENT NO. 9,967,615 AND OTHER ISSUES**

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111. This fact is confirmed by Google's documentation. For instance, Google document titled "AAH Naming and Concepts" explains that Google Play Music was the Music2 application: "Music 2: The Google Play Music app." (GOOG-SONOSWDTX-00052595).

112. As another example, the "Music2 with Tungsten Design Doc" as of August 17, 2011 (GOOG\_SONOSWDTX-00052588) stated the project would focus on "modification of the current Music2 app to support the ability of one or more users to output their media collection to Tungsten devices through a home server. In one case, the user will be able to browse their own collection of music using the Music2 UI and choose tracks, playlists, or albums to be played instantly. The other case allows for multiple users to push tracks from their collections to a common playlist living in the 'Android at home' server."

113. Later the Tungsten/Nexus Q documentation referred to the music application as "Google Play Music" but retained the same headset icon that can be seen in the images of the Music application demonstrated at the May 2011 Google I/O (shown above).



See e.g., GOOG-SONOSWDTX-00052607 at 21. See also e.g., <https://www.theverge.com/2011/11/16/2566928/google-music-store-announcement>

114. As I showed in my opening report, at the time of the alleged invention in 2011, the Project Tungsten/NexusQ prior art (and the Music2 application that was part of this system) used a "local playback queue." In other words, the Tungsten/NexusQ prior art allowed users to add

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tracks to a playback queue. The playback queue was then stored locally on the playback device. Storing the playback queue locally on the playback device, as is claimed in the ‘615 patent and was done by the Tungsten/NexusQ prior art, is in sharp contrast to the accused applications which use a cloud queue. Users of the accused applications may create a playback queue, which can then be stored on an Internet server (also referred to as a “cloud” server) rather than the playback device. The playback device can then playback the cloud queue by caching information about the next item in the queue rather than storing the entire playback queue.

115. I understand that the parties began a collaboration in 2013 to integrate Sonos’s speakers with GPM and that this ultimately resulted in Google moving the playback queue to the cloud. Google’s Second Amended Complaint (Dkt. No. 125), 18. Indeed, by November 7, 2013, Google had informed Sonos that it wanted to implement a more “Cloud Queue centric model,” and Tad Coburn, an inventor of the ‘615 patent, responded that “[t]he idea of moving the playlist to the Cloud is very interesting, but will definitely complicate things.” Dkt. 124-5; *see also* 5-31-2022 Corbin Tr. 75:10-79:10 (confirming that the November 7, 2013 email refers to “moving the playlist from a local queue to a Cloud Queue” and that Mr. Coburn believed that this would “complicate things.”). I understand that the parties thereafter developed a Cloud Queue API for Google Play Music.

116. Indeed, former Sonos engineer, Keith Corbin, testified that Google and Sonos worked together to implement the Cloud Queue API: “As part of the integration of Google Play Music and Sonos, you would agree that Sonos and Google worked together to develop the Cloud Queue API; right? I know we worked together on that initial implementation of it, yes.” 6-1-2022 Corbin Tr. at 208:20-209:1. Mr. Corbin further testified that prior to its collaboration with Google, Sonos was not in possession of a Cloud Queue API: “Q Sir, isn’t it the case that Sonos’s Cloud

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not even have in its possession a Cloud Queue API until years after the alleged invention date further supports my opinion that the ‘615 patent’s “local playback queue” was not intended to cover the Cloud Queue API that Sonos is now accusing.

297. This conclusion is further supported by other statements from Sonos witnesses, including the inventor of the ‘615 patent, Tad Coburn. For instance, as I discussed in my opening report, Google stored the playback queue locally on its receiver devices in its prior art products. Sonos also stored the playback queue on its receiver devices at the time of the alleged invention. However, in 2013 Google worked with Sonos to move the playback queue to the cloud. Notably, when Google informed Sonos that it was planning to move to a cloud queue, Mr. Coburn responded that “[t]he idea of moving the playlist to the Cloud is very interesting, but will definitely complicate things.” Dkt. 124-5; *see also* 5-31-2022 Corbin Tr. 75:10-79:10 (confirming that the November 7, 2013 email refers to “moving the playlist from a local queue to a Cloud Queue” and that Mr. Coburn believed that this would “complicate things.”). Mr. Coburn’s email indicates that Mr. Coburn recognized at the time that Google would be moving the playlist from a local to a cloud queue.

298. It is also notable that Sonos’s witnesses testified that during the development of the Cloud Queue API, they were unaware of anyone at Sonos having informed Google that the Cloud Queue API would infringe any Sonos intellectual property. *See e.g.*, Adam Graham Dep. Tr. at 42:11-44:7. This is yet further evidence that Sonos did not consider its “local playback queue” patent to cover a cloud queue at the time of the collaboration.

299. Dr. Schmidt opines that the “local playback queue” is an `itemWindowResponse`. Schmidt Rpt., 382-385, 438, 442-444. I disagree that an `itemWindowResponse` is a “playback queue.”

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with a Sonos system such as the PLAY:1, PLAY:3, PLAY:5, Beam, Playback, and Playbase, would also satisfy the limitations of claim 13 of the '615 patent under Dr. Schmidt's interpretation.

**XVII. RESPONSE TO DR. SCHMIDT'S OPINIONS REGARDING IMPORTANCE OF THE CLAIMED TECHNOLOGY**

385. I disagree with Dr. Schmidt's opinion regarding the importance of the claimed technology.

386. Dr. Schmidt states "the claimed technology provides significant advantages in the field of networked, multimedia playback systems, such as Google's Chromecast, Home, and Nest multimedia systems, and is foundational technology in this field." Schmidt Rpt., 497. However, it is not clear to me what Dr. Schmidt means by "foundational technology in this field," including which field he is referring to, and what it means for technology to be "foundational." It is also not clear to me in what sense Dr. Schmidt is referring to the technology of claim 13 of the 615 patent as "foundational."

387. I do not consider the '615 Patent to be "foundational" to the extent Dr. Schmidt is using the term "foundational" to mean that the '615 patent provides a substantial improvement over the prior art. Claim 13 recites a particular system for transferring playback of media from a controller (such as a smartphone) to a receiving device (such as a speaker) that uses a "local playback queue." As I showed in my opening report, the technology claimed in the '615 patent was well-known at the time of the invention and Google's own prior art products implemented this technology prior to Sonos's '615 patent. Indeed, the accused applications are similar to the YouTube Remote and Tungsten/NexusQ prior art, with the exception that the prior art stored the playback queue locally on playback device (as required by claim 13) while the accused applications moved the playback queue to the cloud and thus do not infringe. The fact that the '615 patent reflects the old, prior art approach of using a local playback queue to transfer playback,

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rather than the accused product approach of using a cloud queue, supports my opinion that the ‘615 patent is not foundational and did not meaningfully (if at all) advance the state of the prior art. Moreover, while Dr. Schmidt may argue that the first version of the YouTube remote did not include a device-picker, I disagree that the device-picker renders the ‘615 patent “foundational.” Google’s Project Tungsten/Nexus Q disclosed a device-picker, as did many other prior art references and patents (including Airplay, Sonos’s prior art products, and Al-Shayk). Moreover, Google disclosed a device-picker feature in its YouTube Remote patent and added the feature to the YouTube Remote system prior to the effective filing date of the ‘615 patent on December 30, 2011, as I discussed in my opening report. Google’s YouTube Remote roadmap also indicated that various pairing methods were considered prior to Sonos’s invention for the YouTube remote. GOOG-SONOS-NDCA-00086353 (YouTube Remote Control – Roadmap) at 2 (“Ease of Pairing: -persistent pairing: once devices are paired, they should find each other irrespective of being logged in; no-setup pairing: devices on the same Wi-Fi should detect each other automatically using DLNA or similar protocol”).

388. Further, the ‘615 patent requires a particular implementation of the prior art local playback queue. For instance, the local playback queue must add the claimed “multimedia content” and “resource locators.” In other words, not only is the ‘615 patent directed to the prior art approach of using a local playback queue, but it is further limited to a particular implementation of that old local playback queue approach. The fact the system is narrowly directed at the use of a particular local playback queue, supports my opinion that the patent is not “foundational.”

389. Additionally, Dr. Schmidt himself pointed out, there are a number of applications that he alleges to be “comparable”, which also provide playback transfer from one device to

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considerations. It is also my understanding that Sonos may submit an expert report corresponding to this report. I reserve the right to rebut any positions taken in that report.

394. I, Samrat Bhattacharjee, declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

DATED: July 27, 2022



Dr. Samrat Bhattacharjee, PhD.